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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,150	08/01/2006	Satoshi Kadotani	04853.0134	5046
22852 7590 01/28/2008 FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			EXAMINER PARKER, FREDERICK JOHN	
			ART UNIT 1792	PAPER NUMBER
			MAIL DATE 01/28/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/588,150

Applicant(s)

KADOTANI ET AL.

Examiner

Frederick J. Parker

Art Unit

1792

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7,9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7,9 and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 1-9-08.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. The rejections of the previous Office Action are withdrawn and replaced by the following new rejections:

#### ***Information Disclosure Statement***

2. The information disclosure statement filed 1/9/08 fails to comply with 37 CFR 1.97(c) because it lacks a statement or fee as specified in 37 CFR 1.97(e,c). It has been placed in the application file, but the information referred to therein has not been considered. See MPEP 609.01.

#### ***Claim Objections***

3. Claim10 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 9. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). Dependencies are the same although one states method and the other apparatus, suggesting a typo on the one dependency. For Examination, they both depend on claim 5.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1,4 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Toshihiro JP 2002-367616 (Reference (1)).

Toshihiro teaches a method, and apparatus for carrying out the method, for applying discontinuous electrode coatings comprising a catalyst powder as part of a membrane electrode assembly using electrostatic means.

The method comprising the features according to claim 1 is basically anticipated in reference 1 [cf. (I), Abstract, paras. [0002], [0003], [0008], [007], [0018], Figures 7-9, and elsewhere]. Catalyst powder 21 is electrostatically applied to the surface of a polymer electrolyte membrane 28(PEM) (clm 4), in order to form an MEA. The process comprises the process steps of using a control plate 57(= screen-like body) having a certain number of holes with specified diameters which is disposed in a non-contact state of non-contact of the PEM substrate, a voltage is applied between the control plate and PEM substrate so as to generate an electrical field there between. A corona means is disposed in the powder holding powder container (= "hopper") to electrically charge the catalyst powder (electrode powder), and a roller 26 is disposed in a region of said catalyst container which transfers said catalyst powder from said catalyst container towards said control plate and presses catalyst powder through the holes of said control plate such that said catalyst powder is dispersed/ "flies" towards the surface of said PEM, the catalyst powder adhering to the substrate surface via electrostatic forces between the control plate and PEM. The applied powder is in a pattern corresponding to the openings of the plate. Since the control plate contains openings corresponding to the powder to be deposited on the substrate, the plate "screens" the powder being aimed at the plate to only permit powder to pass through the selective openings to form the powder pattern, see Fig. 7 and 9, and accompanying text [0017-18]. Thus, the plate 57 provided is a "screen" as required by claim 1, and claim 1 is anticipated by Toshihiro. Alternatively, plate 57 is not expressly a screen/mesh but it would have been

functionally equivalent to a printing screen because both contain blocked regions and open patterned regions, the latter being the openings through which powder is forced to form the applied powder patterns on the substrate, and the only difference between the two processes, the plate of Toshihiro, is a functionally equivalent means and therefore an obvious variation of Applicants' "screen" because of the expectation of equivalent results.

9. Claims 2,3,5-7,9,10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toshihiro alone, or optionally further in view of Childress US 3081698

Toshihiro is cited for the same reasons above which are incorporated herein. While the nature of the roller material is not disclosed, it is the Examiner's position that one of ordinary skill would have readily recognized that the roller pushing particles through the openings would necessarily be made of a material which is elastic/ resilient to provide good contact with the surface through which the particles are transported. A hard, abrasive material, e.g. metal or hard plastic, would have caused rubbing of the apertured plate 57, leading to rapid wear and introduction of worn particles as contamination into the coating being applied. Therefore the use of a soft elastic/resilient material would have been obvious both for predictable improvement in coating and economic considerations. Applicants are reminded that KSR 82 USPQ2d 1396 forecloses the argument that a specific teaching, suggestion, or motivation is required to establish a prima facie case of obviousness. KSR establishes that design incentives, market forces, predictability, use of ordinary skill and common sense, and ordinary capabilities or ingenuity of one skilled in the art articulated by the Examiner may be relied upon to support obviousness.

Optionally the Examiner provides Childress which discloses the use of soft/ elastic rollers. Childress provides a similar electrostatic powder stenciling method in which it is expressly recognized to use a roller which is "soft", or has "a felt-type of covering" (col. 2, 41-44 & col. 3, 17-23), which are inherently resilient or elastic, to push powder through a surface bearing openings through which powder is intended to be printed onto a surface with the design of the opening. It would have been obvious to one of ordinary skill in the art at the time the invention was made to carry out the method of Toshihiro by utilizing a soft/ elastic roller body as would have been obvious, or optionally in view of the explicit teachings of Childress, to provide the benefits of ease of application and economic incentives.

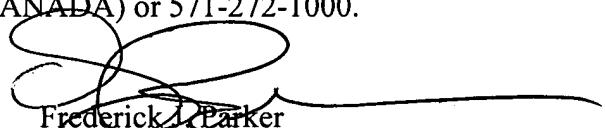
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frederick J. Parker whose telephone number is 571/ 272-1426. The examiner can normally be reached on Mon-Thur. 6:15am -3:45pm, and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571/272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Frederick J. Parker  
Primary Examiner  
Art Unit 1792

fjp